Safety Assessment Code Supplement For The DOD Patient Safety Program Handbook

Introduction

This document is intended to supplement the DOD Patient Safety Program Handbook (Handbook). The Handbook's level of detail was aimed at providing a top level outline of how the overall system will operate but was deliberately not detailed enough to permit actual working level detail to implement the program at the front line level. This supplement, together with the appropriate training, should serve as a detailed guide on how the risk manager/quality manager or equivalent (RM/QM) at the facility level will handle any safety related incident. It will take the process from the point of establishing if immediate action is required with respect to an incident all the way through to determining its root cause/contributing factors, and specifying appropriate corrective action.

It cannot be overemphasized that to be successful the reader must use the information contained in the Handbook and this supplement together with the training program in order to be properly prepared to implement this program. While the written materials are important, the level of expertise and mastery required can only be reliably achieved when these materials are combined with the contextually rich information that comes from the examination and analysis of actual cases and other real-life situations that training will provide.

Immediate Action

There are a variety of actions that may need to be taken immediately following an adverse event or close call. These actions may include: providing immediate care to individuals involved in the event (patient, staff or visitors); making the situation/scene safe to prevent immediate reoccurrence of the event; removing equipment or supplies that malfunctioned; establishing a chain of evidence; notifying police and security, etc.

Safety Assessment Code

The Safety Assessment Code (SAC) is method by which RM/QM will determine whether any further definitive action is required concerning a particular incident based on the severity of the incident and its probability of occurrence. While there is undoubtedly and necessarily a level of subjectivity/judgement involved in this classification it provides a more uniform yardstick, from a systems perspective, by which to prioritize actions. It is certainly possible that the level of severity and the probability that is assessed at the outset of this process may be found to be in need of revision in the cases where a root cause analysis (RCA) is subsequently performed but this is O.K. and not unexpected. The use of the SAC is at the start of the process so that our precious resources, particularly time, are applied where they have the greatest opportunity to improve the level of safety from a systems perspective and are not squandered. It should be noted

that the SAC score is also of value for incidents that did not actually result in an actual adverse event such as close calls. This is a valuable feature since close calls generally occur far more frequently than actual adverse events and provide an opportunity to improve the system without having had to experience an actual untoward event.

While either the severity or probability of occurrence could be determined first, it is usually more productive to assess the severity first. This is true since until one has determined the severity of an incident it would be difficult if not impossible to assess an appropriate probability level.

Severity is divided into four categories – catastrophic, major, moderate, and minor. The definitions for these categories have been chosen so that they will be consistent or support activities that may be required by certain other groups such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Occupational Safety and Health Administration (OSHA), the Food and Drug Administration (FDA), and others. In order to insure the most consistent process and results in assigning SAC scores across facilities and individuals doing the scoring, it is important that the definitions provided are the criteria that are used in the determination of the severity category. In some instances the RM/QM's past experience might lead them to arrive at a severity level that is not consistent with the definitions that are used here. Also, when assessing the severity of the event from a potential/risk thereof standpoint, a perspective must be used where one considers the most likely "worst case" outcome from a systems standpoint. For example, if you entered a patient's room before they were able to complete a lethal suicide attempt, the event would be classified as catastrophic from a potential/risk thereof perspective even though the suicide was prevented.

Probability is divided into three categories – high, medium, and low. These categories are the most subjective. However, when used in concert with the level of severity they have been shown to result in consistent SAC scores by virtue of the construction of the SAC matrix table. Here it is important that the assessment of the probability be made from the perspective of the facility where the incident occurred. This is true since if the RM/QM were to use, for example, a national perspective, virtually any incident that could be imagined would fall into the frequent category. In this way actions taken will be guided and consonant with the circumstances present in the facility directly involved with the incident.

As was stated earlier, it must be remembered that the SAC score is just a tool with which to more consistently prioritize the activities that are associated with any incident that occurs. The SAC provides criteria for determining what action is required at a minimum but in no way is intended to prevent a RM/QM or facility from assigning a higher level of priority if that is felt to be appropriate. **There is no substitute for good judgement.**

The following hypothetical examples will provide the basis upon which the RM/QM will be able to successfully determine SAC scores for a wide variety of cases.

SAC Score Example
Case 1

On January 24, 1998 at 6:30 a.m. the nursing staff was providing the patient with routine a.m. care. This consisted of showering the patient in the shower room on the ward. The patient was seated in a chair being washed when he slid off the chair and hit his face, hip, and shoulder. The patient was examined by the doctor at 7:55 a.m. and transferred to our Acute Evaluation Unit (AEU) for further evaluation. The AEU physician ordered x-rays. No fractures noted. The patient was returned to the ward where neuro checks were initiated as per policy and reported as normal.

Severity Determination

The first step in assigning the SAC score is determining the severity of the event. We can see from the report that no injury was reported after evaluation by x-ray and clinical evaluation on the ward. Therefore, the **actual severity would be rated as minor.** However, when one considers the potential for injury, the evaluator could reasonably assess it as **potentially catastrophic**.

Therefore, while the actual severity would be rated as minor, the potential severity would be considered to be catastrophic. In general, the severity score assigned should be whichever one is the most severe when comparing the actual versus the potential/risk thereof (close call) assessment. In this way, the most conservative course will be selected which will enhance/maximize the potential to prevent future events of this nature. *For this phase of the program, SAC scoring on potential events is not mandated--but highly encouraged.*

Severity Score –
Actual--Minor
Potential--Catastrophic

Probability Determination

The probability determination should be made based on the situation, actual versus the potential/risk thereof assessment, which resulted in the most severe severity assessment. *The evaluator should base the probability assessment on their own experience at their facility.* This, in most cases, will be the most subjective portion of the SAC score determination. It should be noted that the SAC Matrix that is used has been constructed in such a way that is minimizes the impact of this subjectivity. It must be remembered that the entire purpose of the SAC score process is to provide a framework within which to prioritize future actions and that a higher rating can be

assigned if the facility feels that there are particular circumstances warrant more in depth follow-up.

Based on the experience of the evaluator, the probability of a catastrophic (using the SAC definition) outcome in a patient of this type whose head struck a hard object as the result of a fall would be medium. Wanting to be conservative, the medium assessment would be selected.

Probability Score – Medium

SAC Matrix Score

SAC Matrix

Severity & Probability	Catastrophic	Major	Moderate	Minor
High	3	3	2	1
Medium	**Potential 3**	2	1	**Actual 1**
Low	3	2	1	1

Using the SAC matrix one need only locate the severity rating and then follow down the column until reaching the row containing the probability score. In this case this would yield a “3” for a potential or a "1" for actual (near miss). Please notice that even if the probability of the event had been rated as low, the "potential" SAC score still would have been determined to be a “3” and an RCA would have been required. **However, since this is classified as an "actual 1", it qualifies for an aggregated review.**

SAC Score - 3 for Potential/1 for actual

SAC Score Example
Case 2

Yesterday at the XX medical center, the XYZ monitor did not trigger an alarm in the SICU. The problem was observed by the nurses while they cared for a DNR patient who developed cardiac arrhythmias but the monitor failed to trigger the alarm. Since the patient had a DNR order he was not resuscitated.

Severity Determination

The first step in assigning the SAC score is determining the severity of the event. We can see from the report that the actual outcome of this event was the death of the patient. While this would definitely be thought of as a catastrophic event there are other factors to be considered.

Since the patient was classified as a DNR and the nurses who were caring for the patient witnessed the cardiac arrhythmias, the patients death was not the result of the failure of the alarm to annunciate the cardiac abnormalities. Instead, there was an appropriate decision made not to resuscitate based on the DNR order. This then would mean that the actual outcome would be considered to be a result of the natural course of the patient's disease. As such, the severity code based on the actual outcome would be N/A and the case would not receive any further consideration if we were to stop here.

However, such an action does not take into account the potential/risk thereof (close call) assessment and does not make common sense. It was purely serendipitous that the patient was a DNR. Had this not been the case the death would not have been placed in the natural course of the disease category. It was probably also serendipitous that the cardiac arrhythmias were witnessed. This would mean that had this happened in a patient that was not in DNR status that a catastrophic event may reasonably be construed to have occurred. For these reasons the severity for this event would be determined to be catastrophic from a potential perspective. When evaluating these incidents, **you must use good common judgement to determine if the scoring should be based on the actual event or the potential for a catastrophic event to occur.** In this way, the most conservative course will be selected which will enhance maximize the potential to prevent future events of this nature.

Severity Score –
Potential--CATASTROPHIC
Actual--(N/A)

Probability Determination

The probability determination should be made based on the situation, actual versus the potential/risk thereof assessment, which resulted in the most severe severity assessment. The evaluator should base the probability assessment on their own experience at their facility. This, in most cases, will be the most subjective portion of the SAC score determination. It must be remembered that the entire purpose of the SAC score process is to provide a framework within which to prioritize future actions and that a higher rating can be assigned if the facility feels that there are particular circumstances warrant more in depth follow-up.

The probability determination would rely on the experience of the evaluator. For the purposes of this illustration we will assume that the probability is thought to be low.

Probability Score – Low

SAC Matrix Score

SAC Matrix

Severity & Probability	Catastrophic	Major	Moderate	Minor
High	3	3	2	1
Medium	3	2	1	1
Low	**Potential 3**	2	1	**Actual 1**

Using the SAC matrix one need only locate the severity rating and then follow down the column until reaching the row containing the probability score. In this case this would yield a '"3". Please notice that even if the probability of the event had been rated as remote, the SAC score still would have been determined to be a "3".

SAC Score - Potential--3/Actual--1

SAC Score Example
Case 3

This is a 77 year old patient that was admitted on 1/16/98 and has had a complicated and complex course since his surgery for an open cholecystectomy on 1/27/98. On 2/25/98, a volunteer assisting with feeding the patient lunch came in and noted tourniquet had been left on his left arm above the wrist. Tourniquet was immediately removed; hand was deep purple. Patient is minimally responsive and would not have been able to notify nursing staff of tourniquet.

On subsequent examinations, the patient's arm and hand returned to normal appearance – hand warm and dry, no discoloration noted; good capillary refill.

Severity Determination

The first step in assigning the SAC score is determining the severity of the event. We can see from the report that the **actual outcome of this event was minor.**

However, when one considers the potential for injury, the evaluator could reasonably assess the severity as **potentially moderate.** This is true because had the volunteer not discovered the tourniquet on this patient, who was unable to remove it themselves or call for assistance, the result could have been neurovascular compromise that may have required additional care with possible temporary lessening of function. One could also argue that the tourniquet, had it been applied tightly enough, could have resulted in the loss of the limb in some patients. This determination would have to be made by the evaluator. For the purposes of this case, it was felt that a tourniquet applied for the purpose of phlebotomy would, by definition, have to be a venous tourniquet and not an arterial tourniquet otherwise it would not serve its intended function. Therefore, it was felt that the catastrophic severity classification would be inappropriate in this case.

Therefore, while the **actual severity would be rated as minor, the potential severity would be considered to be moderate.** In general, the severity score assigned should be whichever one is the most severe when comparing the actual versus the potential/risk thereof (close call) assessment. In this way, the most conservative course will be selected which will enhance maximize the potential to prevent future events of this nature.

Severity Score –
Potential--Moderate
Actual--Minor

Probability Determination

The probability determination should be made based on the situation, actual versus the potential/risk thereof assessment, which resulted in the most severe severity assessment. It must be remembered that the entire purpose of the SAC score process is to provide a framework within which to prioritize future actions and that a higher rating can be assigned if the facility feels that there are particular circumstances warrant more in depth follow-up.

The probability that a phlebotomist would inadvertently leave a tourniquet on a patient was thought to be frequent, that is likely to occur several times in a year or more.

Probability Score – High

SAC Matrix Score

SAC Matrix

Severity & Probability	Catastrophic	Major	Moderate	Minor
High	3	3	Potential 2	Actual 1
Medium	3	2	1	1
Low	3	2	1	1

Using the SAC matrix one need only locate the severity rating and then follow down the column until reaching the row containing the probability score. In this case this would yield a ‘”2” for potential or "1" for actual.

SAC Score
Potential--2/Actual 1